

Notice of Allowability

Application No.

10/048,136

Examiner

Eric Keasel

Applicant(s)

SAVAGE ET AL.

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3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment, filed June 18, 2004.
2. ☒ The allowed claim(s) is/are 2-18.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Eric Keasel 4 AUG 2004

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jovan Jovanovic on August 3, 2004.

The application has been amended as follows:

1. (cancelled)

2. (currently amended) A male coupling portion of the type configured for use with a female coupling portion to form a fluid-flow coupling structure, each of the male and female coupling portions defining a respective fluid flow path and being removably engageable with one another to communicate the respective fluid flow paths, each coupling portion including a respective valve element having a respective closed first position closing the respective fluid flow path from ambient, said respective valve elements moving to respective open second positions when said coupling portions are engaged together to communicate said fluid flow paths with one another, said male coupling portion comprising:

- a guide structure including support means for supportingly and releasably engaging onto the female coupling portion;

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- said guide structure including structure for guiding a male probe portion in reciprocation between a first position disengaged from the female coupling portion and a second position in which said male probe portion is engageable into the female coupling portion when said coupling portions are engaged together;

- wherein said guide structure includes a pair of diametrically opposite axially extending and arcuate guide tangs;

- said male probe portion reciprocable on said guide structure and carrying said respective valve element of said male coupling portion, and said guide structure and respective valve element including cooperating structure for moving said respective valve element to its open second position in response to reciprocation of said male probe portion to its said second position;

- an actuator rotationally carried upon said guide structure, said actuator and said male probe portion defining cooperating structure for reciprocating said male probe portion between its said first position and its said second position in response to rotation of said actuator.

3. (original) The male coupling portion of Claim 2 wherein said pair of axially extending arcuate guide tangs cooperatively define a substantially circular passage slidably receiving said male probe portion.

4. (original) The male coupling portion of Claim 2 wherein said pair of axially extending arcuate guide tangs each define a pair of circumferentially opposite and axially extending side edges,

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each side edge of said pair of arcuate guide tangs being in circumferential confrontation with a side edge of the other of said pair of arcuate guide tangs to define an axially extending slot.

5. (original) The male coupling portion of Claim 4 further including said male probe portion carrying a nut member reciprocating with said male probe portion, said nut member including a protrusion extending radially into said axially extending slot and slidably engaging with said circumferentially confronting side edges of said guide tangs to prevent relative rotation of said nut member while allowing axial relative movement.

6. (original) The male coupling portion of Claim 5 wherein said cooperating structure of said actuator and said male probe portion includes said protrusion carrying a section of interrupted male thread radially outwardly disposed on a radially outer surface of the protrusion, said interrupted thread threadably engaging a female thread defined on an inner surface of said actuator member.

7. (original) The male coupling portion of Claim 6 wherein said nut member includes a pair of diametrically opposite protrusions, each of said pair of protrusions carrying a respective one of a pair of interrupted male thread sections, and said actuator member includes a double-start thread engaging each of said pair of interrupted thread sections.

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8. (previously presented) The male coupling portion of Claim 4 wherein said guide structure and said actuator member further define cooperating structure for allowing relative rotation of said actuator member while preventing axial relative movement.

9. (currently amended) The male coupling portion of Claim 8 wherein said cooperating structure of said guide ~~portion~~ structure and said actuator includes said guide ~~portion~~ structure defining a radially and circumferentially extending groove, said actuator including a radially and circumferentially extending rib received rotationally into said groove and preventing axial relative movement of said actuator on said guide ~~portion~~ structure.

10. (currently amended) The male coupling portion of Claim 9 wherein said guide ~~portion~~ structure includes a reentrant collar portion cooperating with a remainder portion of said guide ~~portion~~ structure to define an axially extending groove, said collar portion defining said radially and circumferentially extending groove of said guide portion.

11. (currently amended) The male coupling portion of Claim 12 wherein said cooperating structure of said guide structure and respective valve element for moving said respective valve element to its open second position in response to reciprocation of said male probe portion to its said second position includes said respective valve element being of generally tubular configuration and being slidably received on said male probe portion, said valve element further defining a radially outwardly extending flange engaging said guide structure upon reciprocation of said male probe portion to its second position.

12. (original) The male coupling portion of Claim 4 further including said male probe portion carrying a thrust collar member reciprocating with said male probe portion, said thrust collar member and said actuator member including cooperating structure for transferring axial force therebetween while allowing relative rotation so that said thrust collar moves axially in unison with said actuator member.

13. (original) The male coupling portion of Claim 12 wherein said cooperating structure of said thrust collar member and of said actuator includes said thrust collar having a pair of radially outwardly extending protrusions, and said actuator including a pair of axially spaced apart radially extending flanges receiving said protrusions therebetween.

14. (previously presented) The male coupling portion of Claim 4 wherein said guide structure and said actuator member further define cooperating structure for allowing relative rotation of said actuator member while simultaneously causing axial relative movement.

15. (currently amended) The male coupling portion of Claim 14 wherein said cooperating structure of said guide ~~portion~~ structure and said actuator member includes said guide ~~portion~~ structure defining a male thread and said actuator including a female thread threadably engaging said male thread so that said actuator moves axially along said guide ~~portion~~ structure in response to relative rotation to transfer axial force to ~~an non-rotational~~ a non-rotational thrust collar.

16. (currently amended) The male coupling portion of Claim 15 wherein said actuator includes a tubular portion received into said axial passage of said guide ~~portion~~ structure, said tubular portion and thrust collar defining cooperating structure for allowing relative rotation of said actuator member while transferring axial force to said thrust collar.

17. (previously presented) The male coupling portion of Claim 2 wherein said respective valve member of said male coupling portion includes a sealing sleeve member which is slidably carried on said male probe portion, said male probe portion defining an axially extending part of said respective fluid flow path of said male coupling portion and also defining an aperture opening laterally outwardly thereon, said sealing sleeve member in said closed first position spanning and closing said aperture, said sealing sleeve member including a radially outwardly extending element engageable with said guide structure upon forward reciprocation of said male probe portion to stop further forward motion of said sealing sleeve member so that said male probe portion continues forward toward said female coupling portion to uncover said aperture.

18. (previously presented) A coupling structure with male and female coupling structure portions each defining a fluid flow path, and each removably engageable with the other to open fluid communication therebetween, and said coupling portions also being disengageable from one another to close communication between each fluid flow path and ambient, each one of the male and female portions of the having a respective movable valve member in a first position closing

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communication with ambient and in a second position opening communication between the fluid flow paths of the engaged coupling portions, the male coupling portion comprising

- a guide structure including support structure for releasably engaging onto the female coupling portion so that the fluid flow passages of each coupling portion are axially aligned, said guide structure including structure for guiding a male probe portion in reciprocation between a first position disengaged from the female coupling portion and in which the respective valve member is in its closed first position and a second position in which said male probe portion is engaged into the female coupling portion and both said respective valve members are moved to their opened second positions, the guide structure including a pair of diametrically opposite axially extending and arcuate guide tangs;

- said male probe portion being reciprocable on said guide structure and carrying said respective valve element of said male coupling portion, and said guide structure and respective valve element including cooperating structure for moving said respective valve element axially of said male probe portion to its open second position in response to reciprocation of said male probe portion to its said second position relative to said guide structure; and

- an actuator rotationally carried upon said guide structure, said actuator and said male probe portion defining cooperating structure for reciprocating said male probe portion between its said first position and its said second position in response to rotation of said actuator relative to said guide structure.

19. - 22. (cancelled)


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2. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Fig. 7 has been added above the unnumbered Figure above Fig. 8. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Eric Keasel
Examiner
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